

**JUL 12 2002 510(k) SUMMARY OF SAFETY AND EFFECTIVENESS*****The Trabecular Metal Monoblock Cup***

**Submitter Name:** Implex Corp.

**Submitter Address:** 80 Commerce Drive  
Allendale, New Jersey 07401-1600

**Contact Person:** Robert A Poggie, PhD

**Phone Number:** (201) 818 - 1800

**Fax Number:** (973) 829 - 0825

**Date Prepared:** June 12, 2002

**Device Trade Name:** The Trabecular Metal Monoblock Acetabular Cup

**Device Common Name:** Acetabular Prosthesis

**Classification Number and Name:** 21 CFR § 888.3350 and 888.3358, Hip joint metal/polymer semi-constrained cemented prosthesis. Hip joint metal/polymer semi-constrained porous cementless prosthesis.

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**Substantial Equivalence:** The term "substantial equivalence" as used in this 510(k) notification is limited to the definition of substantial equivalence found in the Federal Food, Drug and Cosmetic Act, as amended and as applied under 21 CFR 807, Subpart E under which a device can be marketed without premarket approval or reclassification. A determination of substantial equivalency under this notification is not intended to have any bearing whatsoever on the resolution of patent infringement suits or any other patent matters. No statements related to, or in support of substantial equivalence herein shall be construed as an admission against interest under the US Patent Laws or their application by the courts.

**Device Description:** The Trabecular Metal Monoblock Acetabular Cup is manufactured from Trabecular Metal (Hedrocel Porous Tantalum), titanium alloy (Ti-6Al-4V), and direct compression molded ultra-high molecular weight polyethylene (UHMWPE). It is available with an ID of 28 mm, an OD range of 48 – 70 mm in 2 mm increments, and possesses a hybrid 0 – 10-degree face angle. The device utilizes the same instrumentation and surgical protocol as the Hedrocel and Trabecular Metal Monoblock Cups (K964509 and K003181). These acetabular devices are intended for use with Zimmer and Implex Components as described in K003181.

**510(k) Summary (Continued)****Indications for Use:**

The use of the Implex Hip System is indicated for:

a) Severely disabled joints as a result of degenerative arthritis or avascular necrosis, b) Secondary revision of a previously unsuccessful femoral component or total hip replacement, c) Other hip problems where clinical experience has shown that alternative modes of treatment are less likely to achieve satisfactory results, d) Fracture dislocation of the hip or irreducible fractures in which adequate fixation cannot be achieved, e) Non-union or femoral neck or head fractures, f) Salvage of a failed primary or secondary total or hemi hip.

**Conclusion:**

The Trabecular Metal Monoblock Acetabular Cup is substantially equivalent to the identified predicate devices.



DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Food and Drug Administration  
9200 Corporate Boulevard  
Rockville MD 20850

JUL 12 2002

Robert A. Poggie, Ph.D.  
Director, Applied Research  
Implex Corporation  
80 Commerce Drive  
Allendale, New Jersey 07401-1600

Re: K021970

Trade/Device Name: The Trabecular Metal Monoblock Acetabular Cup  
Regulation Number: 21 CFR 888.3358 and 888.3350  
Regulation Name: Hip Joint Metal/Polymer/Metal Semi-Constrained Porous-Coated  
Uncemented Prosthesis and Hip Joint Metal/Polymer Semi-Constrained  
Cemented Prosthesis  
Regulatory Class: Class II  
Product Code: LPH and JDI  
Dated: June 14, 2002  
Received: June 17, 2002

Dear Dr. Poggie:

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act) that do not require approval of a premarket approval application (PMA). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration.

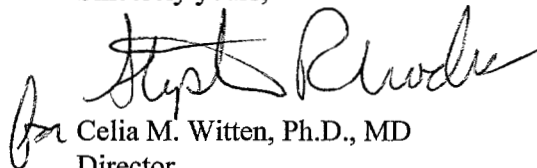
If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to such additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 898. In addition, FDA may publish further announcements concerning your device in the Federal Register.

Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Part 801); good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820); and if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR 1000-1050.

This letter will allow you to begin marketing your device as described in your Section 510(k) premarket notification. The FDA finding of substantial equivalence of your device to a legally marketed predicate device results in a classification for your device and thus, permits your device to proceed to the market.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801 and additionally 21 CFR Part 809.10 for in vitro diagnostic devices), please contact the Office of Compliance at (301) 594-4659. Additionally, for questions on the promotion and advertising of your device, please contact the Office of Compliance at (301) 594-4639. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21CFR Part 807.97). Other general information on your responsibilities under the Act may be obtained from the Division of Small Manufacturers, International and Consumer Assistance at its toll-free number (800) 638-2041 or (301) 443-6597 or at its Internet address <http://www.fda.gov/cdrh/dsma/dsmamain.html>

Sincerely yours,

A handwritten signature in black ink, appearing to read "Celia M. Witten". The signature is fluid and cursive, with a large initial "C" and "W".

Celia M. Witten, Ph.D., MD

Director

Division of General, Restorative  
and Neurological Devices

Office of Device Evaluation

Center for Devices and

Radiological Health

Enclosure

510(k) Number (if  
known):K021970

Device Name:

The Trabecular Metal Monoblock Acetabular Cup

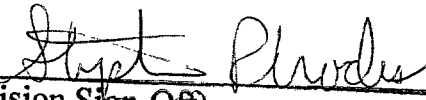
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- e) Non-union or femoral neck or head fractures,
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(PLEASE DO NOT WRITE BELOW THIS LINE - CONTINUE ON ANOTHER PAGE IF  
NEEDED)

Concurrence of CDRH; Office of Device Evaluation (ODE)

  
(Division Sign-Off)  
Division of General, Restorative  
and Neurological DevicesPrescription  
Use X  
(Per 21 CFR 801.109)

510(k) Number

K021970Over-The-  
Counter Use

(Optional Format 1-2-96)